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Data sheet 6DL1134-6TH00-0PH1



SIMATIC ET 200SP HA, analog HART input module, AI 16XI 2-wire HART HA, suitable for terminal block H1, M1, color code CC01, channel diagnostics, 16-bit, +/-0.1%,

General information	
Product type designation	AI 16 x I 2-wire mA HART
Firmware version	V1.1
● FW update possible	Yes
Usable terminal block	TB type H1, M1, P0 and N0
Color code for module-specific color identification plate	CC01
Product function	
● I&M data	Yes; I&M0 to I&M3
Engineering with	
● PCS 7 configurable/integrated from version	V9.0
Redundancy	
● Redundancy capability	Yes; With TB type M1
CiR - Configuration in RUN	
Reparameterization possible in RUN	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Input current	
Current consumption (rated value)	80 mA; without sensor supply
Current consumption, max.	90 mA; without sensor supply
Encoder supply	
24 V encoder supply	
● 24 V	Yes
● Short-circuit protection	Yes; Electronic (response threshold 0.7 A to 1.5 A)
● Output current per channel, max.	0.5 A
● Output current per module, max.	2 A
Power loss	
Power loss, typ.	4.5 W; without sensor supply
Address area	
Address space per module	
● Address space per module, max.	34 byte; 32-byte inputs and 2 bytes for QI information
● Address space per module with HART, max.	74 byte; 32-byte inputs and 2 bytes for QI information, 40-byte inputs for HART
● Address space per module with MultiHART, max.	41 byte; 32-byte inputs for HART and 2 bytes for QI information, 6-byte inputs for HART, and 1-byte output for MultiHART command
Analog inputs	
Number of analog inputs	16
permissible input current for current input (destruction limit), max.	30 mA

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Input ranges (rated values), currents	
● 0 to 20 mA	Yes; 16 bit incl. sign
— Input resistance (0 to 20 mA)	250 Ω
● 4 mA to 20 mA	Yes; 16 bit incl. sign
— Input resistance (4 mA to 20 mA)	250 Ω
Cable length	
● shielded, max.	800 m; with unshielded cables up to 800 m, remember that (external) EMC loads can cause incorrect measured values
Analog value generation for the inputs	
Measurement principle	integrating (Sigma-Delta)
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	16 bit; 15 bit at 0 ... 10 mA and 60 Hz interference suppression
● Integration time, parameterizable	Yes; channel by channel
Smoothing of measured values	
● parameterizable	Yes; none, weak, medium, strong, channel-by-channel
Encoder	
Connection of signal encoders	
● for current measurement as 2-wire transducer	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.005 %/K
Crosstalk between the inputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.05 %
Operational error limit in overall temperature range	
● Current, relative to input range, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
● Current, relative to input range, (+/-)	0.1 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
● Limit value alarm	Yes; two upper and two lower limit values in each case
Diagnoses	
● Monitoring the supply voltage	Yes
● Wire-break	Yes; channel by channel
● Short-circuit	Yes; Channel-by-channel, short-circuit of the encoder supply to ground or of an input to the encoder supply
● Overflow/underflow	Yes; channel by channel
Diagnostics indication LED	
● MAINT LED	Yes; Yellow LED
● Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
● Channel status display	Yes; green LED
● for channel diagnostics	Yes; red LED
● for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	No
Isolation	
Isolation tested with	1 500 V DC/1 min, type test
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-40 °C
● horizontal installation, max.	70 °C; Observe derating
● vertical installation, min.	-40 °C
● vertical installation, max.	60 °C; Observe derating
Dimensions	
Width	22.5 mm
Height	115 mm

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Depth	138 mm
Weights	
Weight, approx.	148 g

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